

Abstract of the Disclosure

The invention is a magnetron 10 and a method of operation of a magnetron. A magnetron in accordance with the invention comprises an anode cylinder (14); a cathode (12) disposed within the anode cylinder; a plurality of vanes (16) extending inward into the anode cylinder so as which form a plurality of resonant cavities; an electrically insulative magnetron chamber wall (20) coupled to the anode; an antenna (18) coupled to at least one of the vanes which provides an output of microwaves passing through the electrically insulative magnetron chamber wall when the magnetron is operating; and at least one baffle (102, 202 and 302) disposed in lines of sight (40, 42, 44 and 46) between the cathode and the electrically insulative magnetron chamber wall on which material emitted from the cathode is deposited instead of on the electrically insulative magnetron chamber wall.